SM221
General Course Policies
Fall, 2003

Objectives:

- Use vectors to explain the algebra and geometry of multidimensional space.
- Use vector-valued functions to describe curves, surfaces, and motion in space.
- Apply functions of several variables, their derivatives, and their integrals to a variety of geometric and physical problems.
- Explore vector fields, line integrals, and some of their applications.

Text: Stewart, *Calculus: Concepts and Contexts*, 2nd ed., Brooks/Cole. We will cover most of chapters nine through thirteen. A generic syllabus is available through the Mathematics Department web site. Since different Calculus III sections have different schedules and may cover some different material, you will need additional information from your instructor.

Technology: You need a Voyage 200, TI-92Plus, or TI-89 calculator. You may use your calculator for all graded work in Calculus III except when your instructor tells you otherwise. You have a copy of Maple on your computer and DPGraph is a free download at www.dpgraph.com (Go to "List of Site Subscribers.") Each of these programs is a powerful 3-D grapher; Maple also performs many of the same funcitons as your calculator. None of these tools has made pencil-and-paper technology obsolete.

Grades: Each section has its own grading policy and its own hour exams.

Final Exam: There will be a course-wide three hour final exam in December. It will include 20 machine-graded multiple choice questions. (Comparisons of different sections' results are designed to help instructors calibrate grading scales.) There will also be 10 longer problems which each instructor will grade individually.

Information:

- The Mathematics Department home page has links to a general Calculus III syllabus and much more. (Choose "Courses" and "Fall Academic Year 2003-2004".)
- Many USNA courses have Blackboard sites, which usually include information on assignments, grades, and links to other data. Your instructor will tell you if your section has its own listing.

Self help:

- Working outside of class is essential to mastering the material in the course. A short homework session every day is much more useful than occasional marathons. Your instructor may modify the suggested homework assignments in the general syllabus, and will establish your section's grading policies.
- Some Blackboard section sites include short multiple choice quizzes designed to help you check that you understand the text.
- Lots of calculator information is available on line. There are several links from the Mathematics Department home page.
- There is a collection of Java applets illustrating various concepts from calculus.
- There is an extensive package explaining how to use Maple in Calculus III.

Help:

You will probably be the first one to know if you need additional help. Besides seeing your instructor outside of class, you can get extra instruction during any class period in the Math Lab, in room 103 of Chauvenet Hall. You can get help in several different core courses through the Midshipman Group Study Program, staffed by Midshipman volunteers evenings, schedule to be announced. The Academic Center in Ward Hall offers many services to help Midshipmen improve their academic performance.